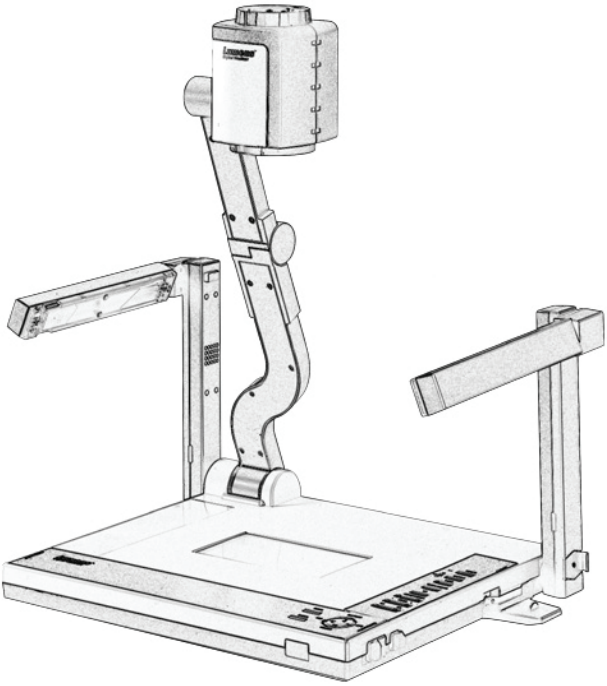
PS600
Digital Visualizer

User Manual



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Chapter 1 Precautions

Always follow these safety instructions when setting up and using the Digital Visualizer:

1. Do not place the Digital Visualizer on an unstable trolley, stand or table.
2. Do not use the Digital Visualizer near water or source of heat.
3. Use attachments only as recommended.
4. Use the type of power source indicated on the Digital Visualizer. If you are not sure of the type of power available, consult your dealer or local electricity company for advice.
5. Place the Digital Visualizer can be easily unplugged.
6. Always take the following precautions when handling the plug. Failure to do so may result in sparks or fire.
   - Ensure the plug is free of dust before inserting it into a socket.
   - Ensure that the plug is inserted into the socket securely.
7. Do not overload wall sockets, extensions leads or multi-way plug boards as this may cause fire or electric shock.
8. Do not place the Digital Visualizer where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.
9. Unplug the projector form the wall socket before cleaning. Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners.
10. Do not block the slots and openings in the projector case. They provide ventilation and prevent the Digital Visualizer from overheating. Do not place the Digital Visualizer on a sofa, rug or other soft surface or in a built-in installation unless proper ventilation is provided.
11. Never push objects of any kind through cabinet slots. Never allow liquid of any kind to spill into the Digital Visualizer.
12. Except as specifically instructed in this User's Manual, do not attempt to operate this product by yourself. Opening or removing covers may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.
13. Unplug the Digital Visualizer during thunderstorms or if it is not going to be used for an extended period, do not place the Digital Visualizer or remote control on top of beat-emitting equipment or heated objects such as a car and etc.
14. In the following situations, unplug the Digital Visualizer from the wall outlet and refer servicing to licensed service personnel:

- If the power cable or plug becomes damaged or frayed.
- If liquid is spilled into it or the Digital Visualizer has been exposed to rain or water.

Safety Precautions

Warning: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

This Digital Visualizer has a 3 wires AC line Plug. This is a safety feature to ensure that the plug will fit into the power outlet. Do not try to defeat this safety feature.
If the Digital Visualizer will not be used for an extended time, unplug it from the power outlet.

<table>
<tr><td colspan="4"> CAUTION RISK OF ELECTRIC SHOCK </td></tr>
<tr><td colspan="4">Caution: To reduce the risk of electric shock. Do not remove cover (or back). No user-serviceable parts inside. Refer servicing to licensed service Personnel.</td></tr>
<tr><td> </td><td>This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.</td><td> </td><td>This symbol indicates that there are important operating and maintenance instructions in this User's Manual with this unit.</td></tr>
</table>

FCC Warning

This Digital Visualizer has been certified to comply with the limits for a Class A computing device, pursuant to Subpart J of Part 15 of FCC Rules. These limits are designed to provide reasonable protection against a harmful interference when the equipment is operated in a commercial environment.

EN55022 (CE Radiation) Warning

This product is intended for use in a commercial, industrial, or educational environment. It is not intended for residential use.

This is a Class A product. In a domestic environment it may cause radio interference,

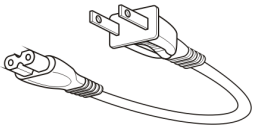
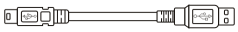
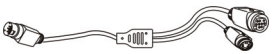
in which case the user may be required to take adequate measures. The typical use is in a conference room, meeting room or auditorium.

If this device certainly causes interference to radio or television, users can modify the interference with the following methods:

- Readjust the direction of the antenna of the radio or the television.
- Readjust the position between this device and the receiver.
- Connect the power plug of this device and the device in different sockets.
- Use the screw driver to fasten the power plug to ensure EMI control develops normal function.

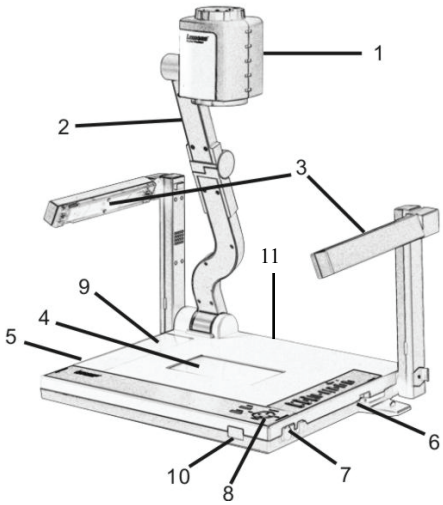
Chapter 2 Package Content

Please make sure the package comes with the following items when you unpack:

PS600	Quick start guide	User Manua
CD	**Power Cable**	**USB Cable**
		
S-Video Adapter	**C-Video Cable**	**VGA Cable**
		
Remote Control		

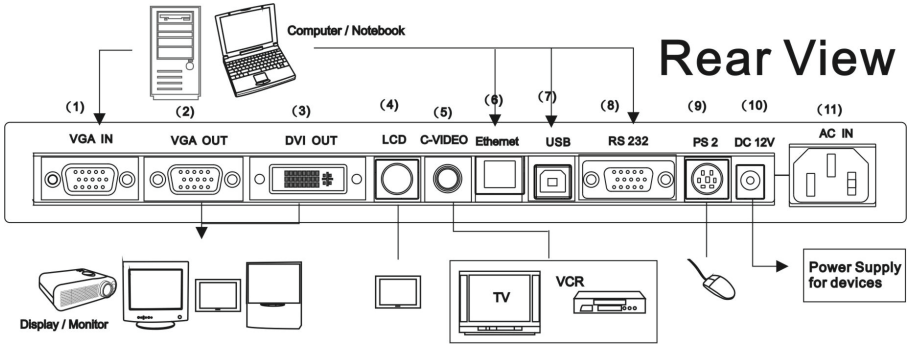
Chapter 3 Product Overview

3.1 Front View/ Rear View



1. Camera Head
2. Camera Arm
3. Lamp
4. Backlight
5. Remote Control Slot
6. CF card slot
7. Lamp lock
8. Control Panel
9. Button Function Guide
10. IR Sensor (used for Remote Control)
11. Input/Output Port (including DIP Setting)

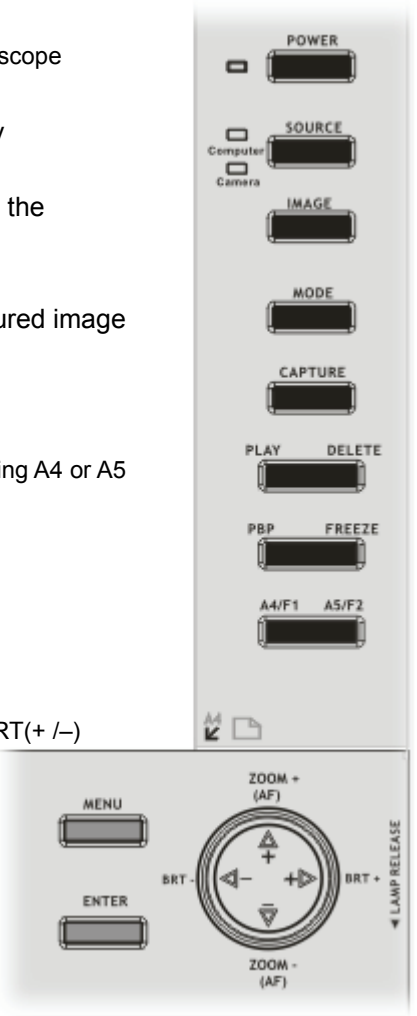
3.2 I/O Connector



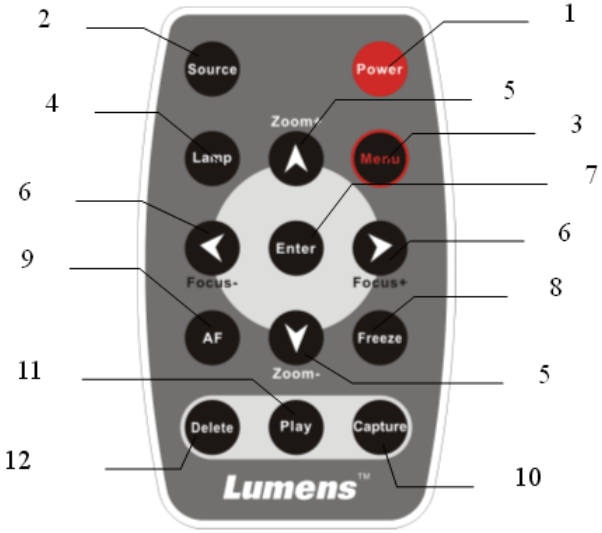
1. **VGA IN**
   Connect to VGA-out of other device, for example PC
2. **VGA OUT**
   Connect to VGA-in of another visual device
3. **DVI OUT**
   Digital & Analog Receptacle Connector
4. **S-Video / LCD Monitor**
   S-Video for video output, external small size LCD monitor is optional
5. **C-VIDEO**
   C-Video for video output
6. **Ethernet**
   Ethernet connection for remote central control (OSD→Advance, should be configured first, please refer to 5.3.15)
7. **USB (support USB 1.1)**
   Ethernet connection For remote central control
8. **RS232**
   Connect external device with RS232, e.g., central system used in classroom or meeting
9. **PS2 Mouse**
   Connect with PS/2 mouse to activate mouse, menu bar or cursor
10. **DC 12V output**
    Output the 12V (DC) from Digital Visualizer, such as the backlight.
11. **AC-in**
    Use this to connect the power cable (100 - 240V) for the power input

3.3 Control Panel

1. **Power**
   Power on/off
2. **Source**
   Select PC or Camera to output
3. **Image**
   Change between Photo or Text mode
4. **Mode**
   Select Normal／Film／Slide／Microscope
5. **Capture**
   Capture image to internal memory
6. **Play, Delete**
   Recall/delete the saved images in the Digital Visualizer
7. **PBP**
   Compare the live image and captured image
8. **Freeze**
   Freeze the image on screen
9. **A4/F1,A5/F2**
   Speedy zoom to A4/ A5 size by pressing A4 or A5
   F1/F2 allows to customize functions
10. **Zoom + /–**
    Zoom in/out by pressing continuously
11. **AF**
    Auto focus by pressing once
12. **Brightness +/–**
    Brightness Adjustment by pressing BRT(+ /–)
13. **Menu**
    Access into the OSD menu.
    Press direction buttons to select one menu and click Enter to get into that menu item
14. **Enter**
    Used for job confirmation under OSD interface



3.4 Remote Control



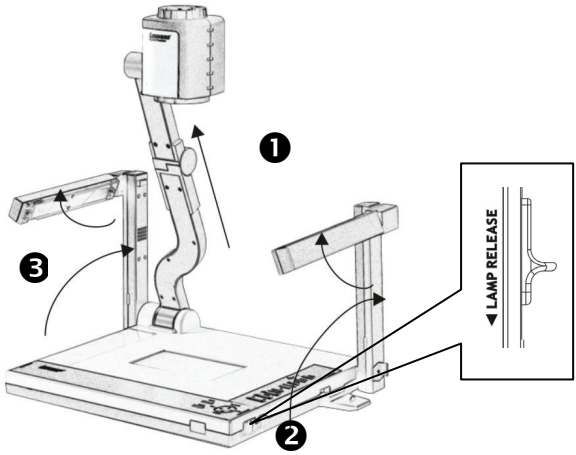
1. **Power**
   Power on/off
2. **Source**
   Select PC or Camera to Output
3. **Menu**
   Access into the OSD menu. Press direction buttons to select one menu and click Enter to get into that menu item
4. **Lamp**
   Switch / on / off the lamp and backlight
5. **Zoom + /–**
   Zoom in/out by pressing +/–
6. **Focus +/-**
   Manual focus for fine tune
7. **Enter**
   Enable the selected function
8. **Freeze**
   Freeze the image on screen
9. **AF**
   Auto Focus
10. **Capture**
    Capture image to internal memory
11. **Play**
    Recall the saved images in the Digital Visualizer
12. **Del**
    Delete the saved images in the Digital Visualizer

※ Caution：Using wrong model of battery might cause explosion. Please follow the related instruction to discard the used battery.

Chapter 4 Installation

4.1 Setup the Digital Visualizer

1. Pull up the arm. The camera head should aim at the center of the Visualizer.
2. Press and hold the Lamp release on both side of the Visualizer and push the Lamp release outside to pull up the lamp.
3. Turning the camera head toward the platform according to the direction of the arrows below.



※Note：The angle of the camera head is limited. Don't turn it forcefully when it reaches the maximal angle.

4.2 Powering on the Digital Visualizer

※ **Note**：Before using the Digital Visualizer, make sure that you have connected it to the computer, video source or other output devices. See Figure: 3-2, Rear View for the position of connector jack.

1. Press <POWER> and open Digital Visualizer. The red LED (blinks till finishing the initilization) will become green LED.
2. Press <LAMP> on remote control to open light sources on both sides or backlight source.
3. You can turn the lamp frame with suitable angle outside to get better effect of illumination.

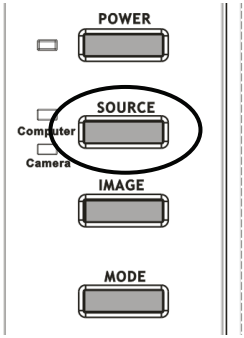
Chapter 5 Operation

5.1 Basic Functions

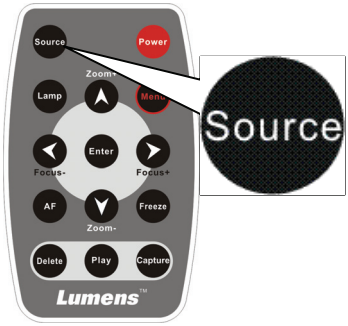
5.1.1 Source

The default input source is set as "Digital Visualizer", press 『Source』to switch.

Control Panel



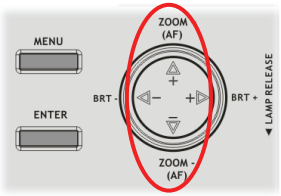
Remote Control



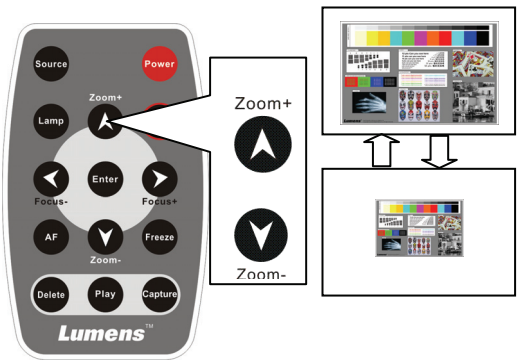
5.1.2 Zoom In/Out

Zoom in / out by pressing continuously

Control Panel



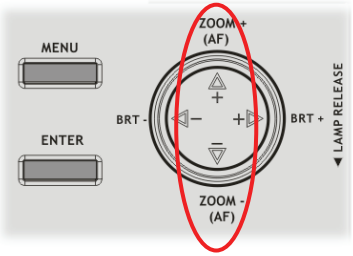
Remote Control



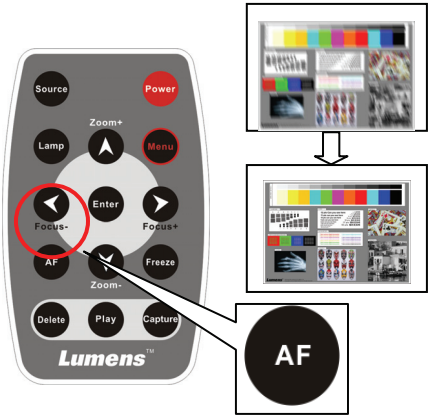
5.1.3 Auto Focus

Auto Focus by pressing once

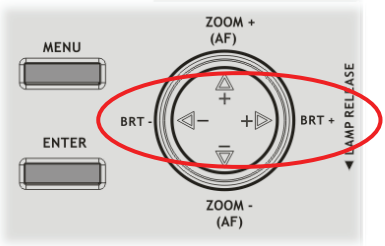
Control Panel

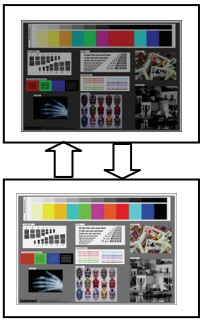


Remote Control



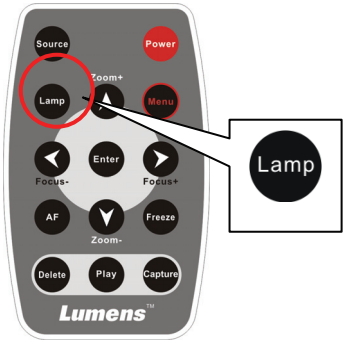
5.1.4 Brightness



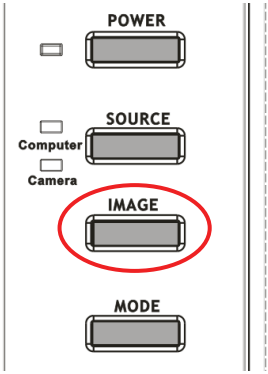


5.1.5 Lamp

Switch / on / off the lamp and backlight

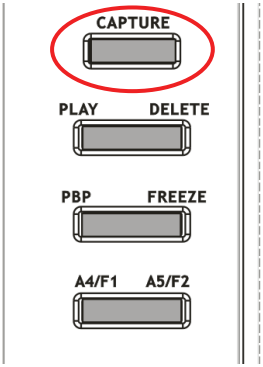


5.1.6 Photo/Text/Gray

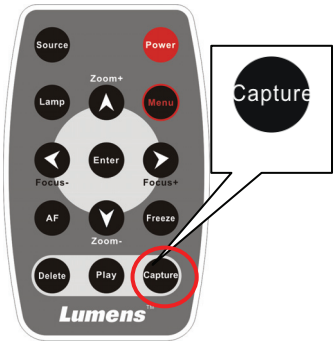


5.1.7 Capture

Control Panel

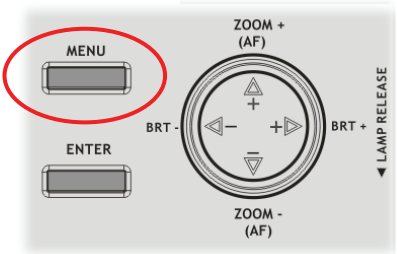


Remote Control

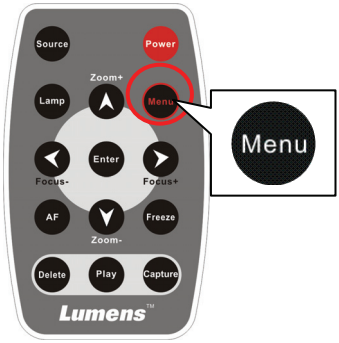


5.1.8 Accessing into OSD Menu

Control Panel



Remote Control



5.2 Advanced Functions

5.2.1 Play Back Captured Images

Remote Control or Control Panel：

1. Press『Play』to display all the captured images miniature.
2. Press『▼ ▲◄►』to select the miniature that you want.
3. Press『Enter』to display the image in full screen.
4. Press『◄►』to view the up and down image.
5. Press『Play』to return to main screen.
6. Press『Menu』to exit.

5.2.2 Delete Captured Images

Remote Control or Control Panel：

1. Press『Play』to access into browsing screen.
2. Press『▼ ▲◄►』to select the miniature that you want.
3. Press『Del』to delete the selected miniature.
4. Press『Menu』to exit.

5.2.3 Customized Function (F1/F2)

Control Panel：

1. Press『Image』and『F1/F2』to enter setting menu.
2. Press『▼ ▲』to select『Lamp』、『Focus + 』、『Focus - 』、『Auto Focus 』、『AWB 』、『Preset』.
3. Press『Enter』to confirm.
4. Execute the customized function set before, and press『Enter』and『F1/F2』at the same time.

5.2.4 Auto Erase

Delete all captured images when user turns off the power.

Remote Control or Control Panel：

1. Press『Menu』to enter OSD menu.
2. Press『◄►』to select『Storage』.
3. Press『▼ ▲』to select『Auto Erase』.

4. Press『◄►』to select『on/off)』.

5. After accessing into『Confirm』, press『▼ ▲』to select『Yes』.

6. Press『Enter』to execute and exit.

5.2.5 PBP

Display current live image and captured image for side-by-side comparison.

Control Panel：

1. Press『PBP』. Press『▼ ▲◄►』to select the miniatures that you want.

2. Press『Enter』to display images for comparison.

3. Press『◄►』to switch into another side of the image.

4. Double click『Menu』to exit.

5.3 OSD Function Introduction

5.3.1 Using OSD Menu

Remote Control or Control Panel：

1. Press『Menu』to enter OSD menu.
2. Press『 ▼ ▲ 』to select function menu.
3. Press『Enter』to enter menu.
4. Press『 ▼ ▲ 』to choose function.
5. 『►◄』means more than one menu. Use『►◄』to execute specified function.
6. 『↵』means one menu only. Press『Enter』to execute the specified function.
7. Press『Menu』to exit OSD menu.

※Note: After opening the function menu, the system will close the menu automatically while unused for a period of time.

5.3.2 OSD Menu

Layer 1	Layer 2	Layer 3	Description
Display	Digital Zoom	ON/OFF (default)	
	Flip	ON/OFF (default)	
	AE	ON (default)/OFF	Expose image automatically
	AWB	Execute	Auto white balance.
	Output Mode	XGA 60Hz / XGA 75Hz / SVGA 60 Hz	Select video output
	Focus		Adjust image focus
Storage	Delete All	Enter / Exit	Delete all captured images
	Format	Enter / Exit	Format
	Media	Internal / PC card	
	Auto Erase	On / Off	Delete all captured images when user turns off the power.
Setting	Lamp	On / Off／Backlight	
	Drawing Type	Frame / Line	Default is Frame. Click left mouse button to use this function.
	Video Format	Auto / NTSC / PAL	
	Language	English / Deutsch / Francais / Italiano/ Eapanol / Русский / English / Traditional Chinese /Simplified Chinese	Select your native language
	Preset	Save/Load	Save/load setting parameters
	Factory Reset	Enter / Exit	Reset all default setting
Advance	DHCP	Enable / Disable	Set DHCP (Dynamic Host Configuration Protocol)

	IP		Set IP address
	Net Mask		Set Net Mask value
	Gate Way		Set Gate Way value

The OSD menu is shown as below when the Input Source from PC

Layer 1	Layer 2	Description
PC Input	Clock	Set the clock
	Phase	Set the phase
	H-Position	Set the image horizontal position
	V-Position	Set the image vertical position
	Brightness	Set the image brightness
	Contrast	Set the image contrast
	Auto Image	Auto. set clock & Phase & Position & Brightness & Contrast

5.4 Network Setting

Step1: Confirm the Ethernet has been connected

Step2: Press 『MENU』button on the control panel or remote control

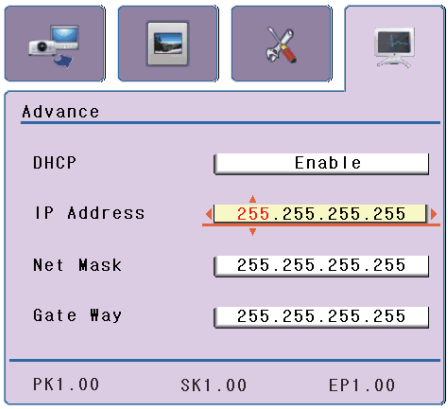
Step3: Select “Advance”

- DHCP：Dynamic Host Configuration Protocol is an Internet protocol for automating the configuration of computers.

> ※Note：Please confirm the DHCP server is available before use it.

- Default is Disable: For static IP address

  Please key in the IP, Net Mask, Gate Way value and save them if you know. Otherwise, please consult the network or MIS administrator to get help.



- Enable: For public IP address

  Please restart the Visualizer after the DHCP was enabled. The IP, Net Mask and Gate Way value can be got automatically by DHCP.

5.5 Other Functions

5.5.1 Viewing Remote Objects

Remote Control / Control Pad:

1. Press『Zoom+』or 『Zoom-』to view the scene that you want.
2. If the remote image is inverted, please press『Menu』to open OSD menu and choose『Flip』.

5.5.2 Viewing Positive/Negative Images

1. The objects must be placed on the backlight board.
2. Press『Mode』to access into switching options, Positive/Negative.

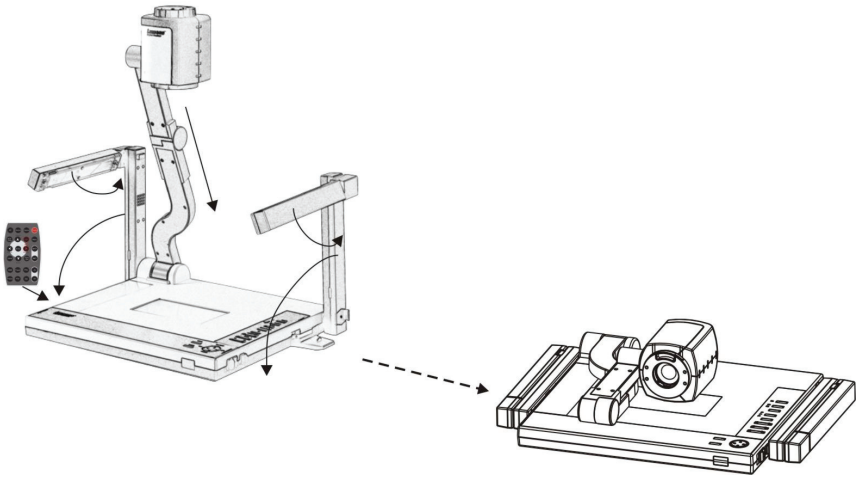
5.5.3 Using USB and RS232

- **USB**
  You can transmit images to computer via USB interface. To enhance USB transmission, make sure that your PC supports USB protocol (the Digital Visualizer is based on USB 1.1 and See II USB software. For detailed information, please refer to software user's guide).

- **RS232**
  RS232, a kind of serial protocol, facilitates remote control functions. For example, you can control the Digital Visualizer installed in a conference room from a PC in another building via RS232. (Refer to 3.2 I/O Connectors) Please ask RS232 comment list from the FAE service member or download data from www.lumens.com.tw.

5.6 Storage after Use

1. Fold the arm and camera head until they touch the stage
2. Turn the camera until it is parallel with the stage.
3. Turn the upper lamps toward the supporting arms
4. Insert the remote control into the slot on the right of the Digital Visualizer.
5. Fold them to both sides of the Digital Visualizer until they lock in both sides.



Chapter 6 Q & A

This chapter describes the problems you might have encountered when you use this Digital Visualizer. If you have a problem, refer to the appropriate section and follow all the suggestions that apply to your problem. If none of the suggested solutions solves the problem, call your dealer or your service center.

- **Q1: The system indicator does not come on.**
  Ans1:
  No power is coming on. Check that the power cord is connected securely both at the power outlet and the PS.

- **Q2: No image appears on the screen.**
  Ans2:
  1-Press different signal buttons and then press the selected signal button.
  2- Make sure all of the cables are installed correctly and securely.
  3- Check the power of LCD monitor or projector is turned on.
  4- Make sure the objector is positioned in the shooting area.

- **Q3: The image or parts of the image are blurred or not in focus.**
  Ans3:
  The lens focusing is maybe not correct or the image sampling is not in the best condition. Press the AF (Auto Focus) on the remote control.

- **Q4: Image is too dark or too bright.**
  Ans4:
  Press the <BRT+> 、<BRT-> on the control panel to adjust the brightness setting.

- **Q5: Remote Control does not work.**
  Ans5:
  1- Please make sure the remote control aimed at the IR sensor.
  2- Please check the battery.